ANNUAL NATIONAL ENVIRONMENTAL POLICY ACT PLANNING SUMMARY
National Energy Technology Laboratory
January 31, 2000

ENVIRONMENTAL IMPACT STATEMENTS

Low Emission Boiler System Proof-of-Concept Project

Description:

The proposed action is DOE funding up to 50% of the total cost for development of coal-fired Low Emission Boiler System technology at the proof-of-concept scale. The proposed project would involve construction and operation of a new 80 MWe electric generating facility at the Elkhart Mine of Turris Coal Company, Elkhart, Illinois. The facility would be a coal-burning, mine-mouth power plant, with coal supply provided from a portion of the mine's output. A slagging furnace with low nitrogen oxide burners, staged combustion, and coal reburning would be used to achieve low emissions of nitrogen oxides. The proposed facility would include a low-temperature heat recovery system, a baghouse for particulate removal, a scrubber for removing sulfur oxides, and supporting auxiliary systems.

NEPA Schedule (completed milestones are shown in italics):

Determination:	*September 5, 1996*
Notification:	*September 5, 1996*
Internal Scoping:	*October - November 1996*
Notice of Intent Issued:	*December 13, 1996*
Federal Register Announcement:	*December 19, 1996*
Public Meetings:	*January 15, 1997; January 16, 1997*
Close Scoping Period:	*February 3, 1997*

[Remaining schedule is tentative based on project reevaluation by the participant]

Preliminary Draft EIS:	May 2000
Draft EIS:	July 2000
Public Distribution:	July 2000
Public Hearing:	September 2000
Preliminary Final EIS:	November 2000
Final EIS	January 2001
Draft Record of Decision:	February 2001
Approved Record of Decision	March 2001

Estimated Cost: $ 400,000

ANNUAL NATIONAL ENVIRONMENTAL POLICY ACT PLANNING SUMMARY
National Energy Technology Laboratory
January 31, 2000

Clean Power from Integrated Coal/Ore Reduction (CPICOR)

Description:

The proposed action is DOE participation, through financial assistance, in a cooperative agreement under the Clean Coal Technology demonstration program for design, construction, and operation of a demonstration plant that integrates the production of molten iron for steel making with the production of electricity for utility distribution. The demonstration project, proposed for location at Geneva Steel Company's existing steel plant at Vineyard, UT, would produce approximately 3,300 tons per day of hot metal and up to 160 megawatts of electricity.

The proposed facility would produce molten iron by the continuous and concurrent reaction of raw coal and raw iron ores in a high-temperature smelter. A high-temperature, low-energy-content by-product gas would be combusted to raise steam for both plant use and electricity generation. The proposed facility would include a wet scrubber gas cleaning system to remove particulate matter, an air separation unit to provide oxygen for the smelter, a heat recovery steam generator, a steam turbine generator, and supporting auxiliary systems.

NEPA Schedule (completed milestones are shown in italics):

Determination:	*December 27, 1996*
Notification:	*December 27, 1996*
Internal Scoping:	*February 12, 1997*
Notice of Intent Issued:	*June 22, 1999*
Federal Register Announcement:	*June 28, 1999*
Public Meeting:	*July 15, 1999*
Close Scoping Period:	*August 16, 1999*
Preliminary Draft EIS:	March 2000
Draft EIS:	May 2000
Public Distribution:	June 2000
Public Hearing:	July 2000
Preliminary Final EIS:	September 2000
Final EIS:	November 2000
Draft Record of Decision:	December 2000
Approved Record of Decision:	January 2001

Estimated Cost: $ 475,000

ANNUAL NATIONAL ENVIRONMENTAL POLICY ACT PLANNING SUMMARY
National Energy Technology Laboratory
January 31, 2000

Lakeland McIntosh Unit 4 Demonstration Project

Description:

The proposed action is DOE participation, through financial assistance, in a cooperative agreement under the Clean Coal Technology demonstration program for design, construction, and operation of a demonstration plant for Pressurized Circulating Fluidized Bed coal combustion technology. The demonstration project, proposed for location at the City of Lakeland's C.D. McIntosh Power Plant at Lakeland, FL, would produce 238 megawatts of electricity.

NEPA Schedule (completed milestones are shown in italics):

Determination:	*March 18, 1997*
Notification:	*March 18, 1997*
Internal Scoping:	*March 1997 - February 1999*
Notice of Intent Issued:	*March 22, 1999*
Federal Register Announcement:	*March 26, 1999*
Public Meeting:	*April 13, 1999*
Close Scoping Period:	*May 21, 1999*

[Remaining schedule is tentative based on participant's reevaluation of power options]

Preliminary Draft EIS:	May 2000
Draft EIS:	July 2000
Public Distribution:	August 2000
Public Hearing:	September 2000
Preliminary Final EIS:	November 2000
Final EIS:	February 2001
Draft Record of Decision:	March 2001
Approved Record of Decision:	April 2001

Estimated Cost: $ 490,000

JEA Circulating Fluidized Bed Combustor Project

Description:

The proposed action is DOE participation, through financial assistance, in a cooperative agreement under the Clean Coal Technology demonstration program for design, construction, and operation of a demonstration plant for Circulating Fluidized Bed (CFB) coal combustion technology. The proposed project would involve construction and operation of a CFB

combustor fueled by coal and petroleum coke to repower an existing steam turbine at JEA's Northside Generating Station in Jacksonville, FL, to generate nearly 300 megawatts of electricity. JEA plans to form an alliance with Foster Wheeler Corporation through its subsidiary, Foster Wheeler Power Systems, Inc., to jointly own and operate the project.

NEPA Schedule (completed milestones are shown in italics):

Determination:	*September 22, 1997*
Notification:	*September 29, 1997*
Internal Scoping:	*October 7, 1997*
Notice of Intent Issued:	*November 6, 1997*
Federal Register Announcement:	*November 13, 1997*
Public Meeting:	*December 3, 1997*
Close Scoping Period:	*December 31, 1997*
Preliminary Draft EIS:	*March 1999*
Draft EIS:	*August 1999*
Public Distribution (NOA):	*August 25, 1999*
Public Hearing:	*September 30, 1999*
Close Comment Period:	*October 15, 1999*
Preliminary Final EIS:	February 2000
Final EIS:	March 2000
Draft Record of Decision:	April 2000
Approved Record of Decision:	May 2000

Estimated Cost: $ 600,000

Kentucky Pioneer Energy Integrated Gasification Combined Cycle Project

Description:

The proposed action is DOE participation, through financial assistance, in a cooperative agreement under the Clean Coal Technology demonstration program for design, construction, and operation of a 540 MWe demonstration plant near Trapp, Kentucky. The plant would utilize municipal solid waste combined with coal to form briquettes for the gasification process. The synthesis gas would be burned in a combustion turbine to generate electricity, and exhaust heat would be used to boil water to drive a steam turbine. Some of the synthesis gas would be directed to a 1.25 MWe molten carbonate fuel cell for additional electrical generation.

NEPA Schedule (completed milestones are shown in italics):

Determination:	February 2000

Notification:	March 2000
Internal Scoping:	March 2000
Notice of Intent:	April 2000
Public Scoping:	May 2000
Preliminary Draft EIS:	December 2000
Draft EIS:	January 2001
Public Distribution:	February 2001
Public Hearing:	March 2001
Preliminary Final EIS:	June 2001
Final EIS:	July 2001
Draft Record of Decision:	July 2001
Approved Record of Decision:	September 2001

Estimated Cost: $ 400,000

ENVIRONMENTAL ASSESSMENTS

Rock Springs Environmental Remediation

Description:

The proposed action is DOE remediation of a Rock Springs, WY, site previously used to test in-situ oil shale retorting technology. As a result of this testing, the groundwater at the site is contaminated with benzene and other organic compounds. An agreement with the State of Wyoming was signed by DOE for clean-up of this site.

NEPA Schedule (completed milestones are shown in italics):

Determination:	*December 7, 1999*
Notification:	*December 7, 1999*
Internal Scoping:	*October - December 1999*
Draft Assessment:	February 2000
Public Participation:	February - March 2000
Final Assessment:	April 2000
FONSI or EIS Determination:	May 2000

Estimated Cost: $ 60,000

ANNUAL NATIONAL ENVIRONMENTAL POLICY ACT PLANNING SUMMARY
National Energy Technology Laboratory
January 31, 2000

Co-Utilization of Coal with E-Fuel from the SlurryCarb Process

Description:

The proposed action is for DOE to participate in a cooperative agreement to test the combustion of coal with fuel produced from the SlurryCarb process, a process that converts sewage sludge and other organic wastes to hydrocarbon fuels. Under the cooperative agreement, a SlurryCarb facility would be constructed at a sewage sludge processing plant at South Kearny, New Jersey. This facility would process sewage sludge received at the facility to produce fuel, which would be tested for combustion in blends with coal at existing coal-fired boilers.

NEPA Schedule (completed milestones are shown in italics):

Determination:	*June 17, 1999*
Notification:	*June 17, 1999*
Internal Scoping:	*June 1999 - February 2000*
Draft Assessment:	June 2000
Public Participation:	June - July 2000
Final Assessment:	July 2000
FONSI or EIS Determination:	August 2000

Estimated Cost: $ 45,000

Demonstration of a Coking Reactor Module at LTV Steel

Description:

The proposed action is for DOE to participate in a cooperative agreement with Calderon Energy to support a project for demonstrating novel cokemaking technology at the LTV steel plant in Cleveland, Ohio. The project would result in construction and operational testing of a 200 ton-per-day coking system that uses an innovative continuous, totally enclosed coking reactor. The system would be constructed at the location of a former coking operation within LTV's plant and would be operated to produce 80,000 tons of specification coke for testing in an existing LTV blast furnace. Upon completion of operational testing, the coking system would be dismantled and removed from the site.

ANNUAL NATIONAL ENVIRONMENTAL POLICY ACT PLANNING SUMMARY
National Energy Technology Laboratory
January 31, 2000

NEPA Schedule (completed milestones are shown in italics):

Determination:	*January 14, 2000*
Notification:	*January 28, 2000*
Internal Scoping:	*December 1999 - January 2000*
Draft Assessment:	April 2000
Public Participation:	April - May 2000
Final Assessment:	June 2000
FONSI or EIS Determination:	June 2000

Estimated Cost: $ 40,000

Participation in an Ocean Sequestration of CO_2 Field Experiment

Description:

The proposed action is for DOE to participate in a test of CO_2 dispersion in deep ocean waters at a depth of 800-1,000 meters. The test would be performed under a contract initiated between the New Energy Development Organization (NEDO) in Japan and the Pacific International Center for High Technology Research in Honolulu, Hawaii. DOE would provide funds for supporting environmental surveys, public outreach, and permitting. DOE is a participant with NEDO, the Research Council of Norway, and other organizations in an international agreement for collaboration on studies of the technical feasibility of ocean sequestration of CO_2.

NEPA Schedule (completed milestones are shown in italics):

Determination:	February 2000
Notification:	February 2000
Internal Scoping:	January - February 2000
Draft Assessment:	May 2000
Public Participation:	May - June 2000
Final Assessment:	June 2000
FONSI or EIS Determination:	July 2000

Estimated Cost: $ 60,000

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National Energy Technology Laboratory
January 31, 2000

Gasification of Biomass and Black Liquor

Description:

The proposed action is for DOE to participate with an industrial organization in a cooperative agreement to determine, through process application at the demonstration or commercial scale, the technical, energy efficiency, and environmental performance of applying gasification technology to biomass or black liquor processing.

NEPA Schedule (completed milestones are shown in italics):

Determination:	April 2000
Notification:	April 2000
Internal Scoping:	January - April 2000
Draft Assessment:	May 2000
Public Participation:	May - June 2000
Final Assessment:	July 2000
FONSI or EIS Determination:	July 2000

Estimated Cost: $ 60,000